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Title: ODOUR ADSORBING MEANS ;

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Equivalents: ;

ABSTRACT:

The means comprises a container, particularly a sachet, containing a natural or synthetic zeolite in the form of fine dust, powder, granules or crystals the sachet being air/gas/water permeable and preventing significant escape of the contents. The sachet, which can resemble a "tea bag", may include double sided adhesive tape to allow it 1. to be placed easily on a. the outer surface of a wound or ulcer dressing b. the surface of an incontinence pad, or 2. to be fixed, if necessary, on the inner surface of a stoma bag.

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(51) INT CL⁶

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(52) UK CL (Edition L)

A5R RCE RPV
A5E ES E405
U1S S1049 S1052 S1122

(56) Documents cited

GB 2227668 A GB 2216007 A WO 81/01643 A
JP 630305862 A US 4437429 A US 4382913 A

(58) Field of search

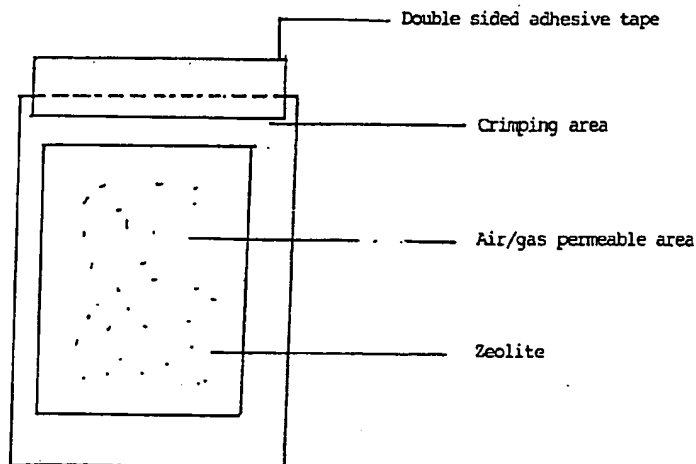
UK CL (Edition K) A5E ES, A5R RCE RPG RPV
INT CL⁶ A61F, A61L
Online databases: WPI, CLAIMS

(54) Odour adsorbing means

(57) The means comprises a container, particularly a sachet, containing a natural or synthetic zeolite in the form of fine dust, powder, granules or crystals the sachet being air/gas/water permeable and preventing significant escape of the contents. The sachet, which can resemble a "tea bag", may include double sided adhesive tape to allow it

1. to be placed easily on
 - a. the outer surface of a wound or ulcer dressing
 - b. the surface of an incontinence pad, or
2. to be fixed, if necessary, on the inner surface of a stoma bag.

Figure 1. CONTAINER - NON WOVEN AIR/GAS PERMEABLE SACHET



The claims were filed later than the filing date within the period prescribed by Rule 25(1) of the Patents Rules 1990.

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Figure 1. CONTAINER - NON WOVEN AIR/GAS PERMEABLE SACHET

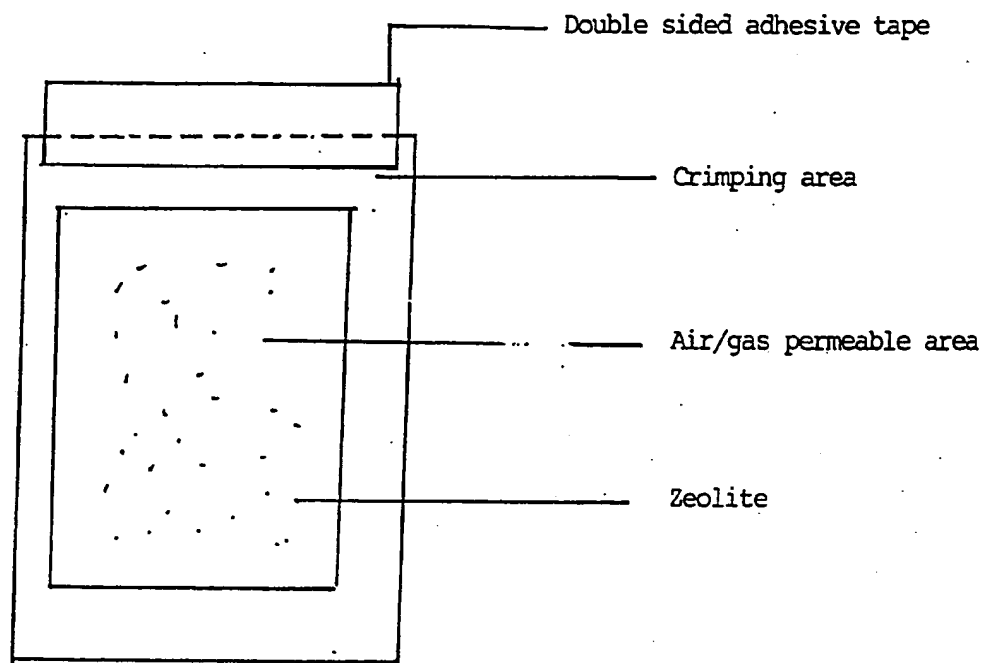


Figure 2. APPLICATION OF SACHET TO STOMA BAG

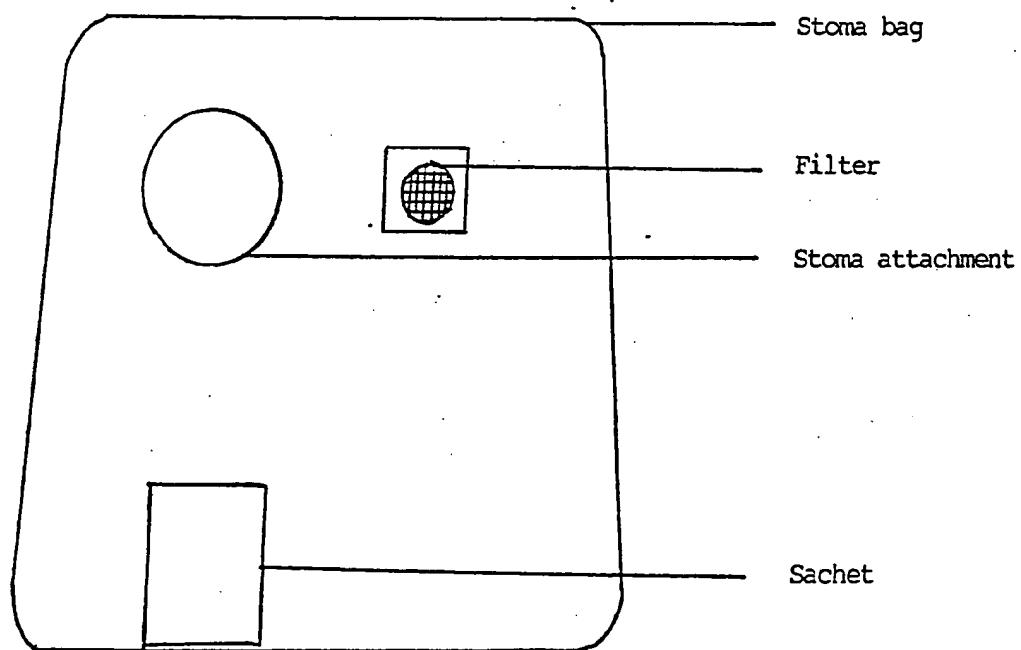
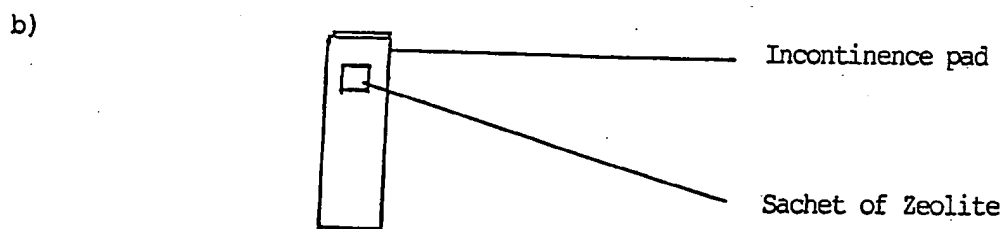
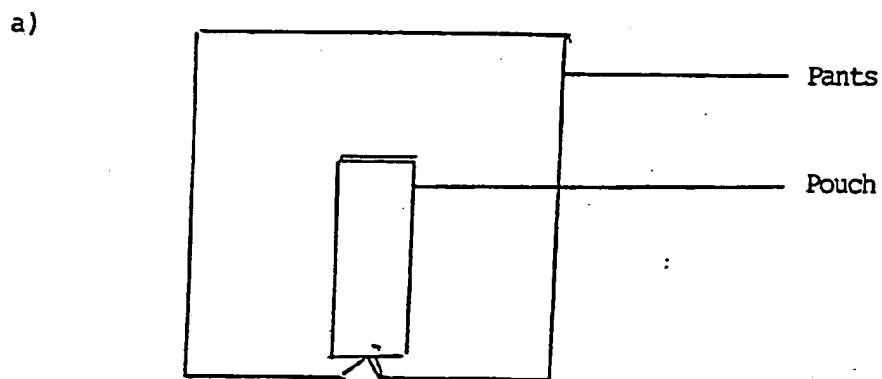


Figure 3. APPLICATION FOR USE IN INCONTINENCE APPLIANCES

Appliances



Application

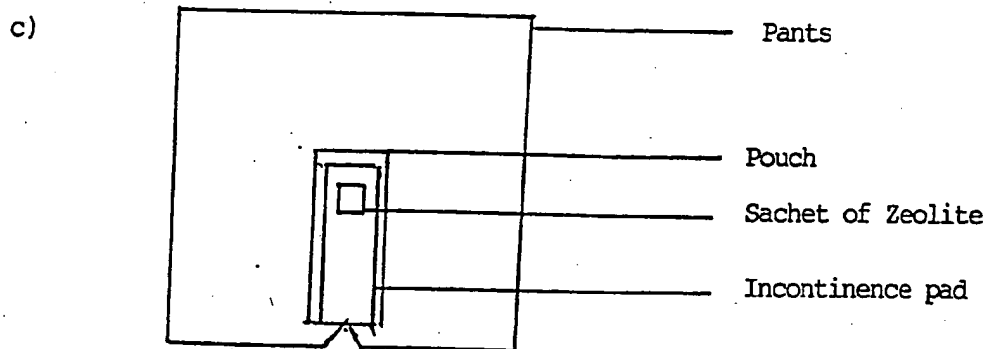
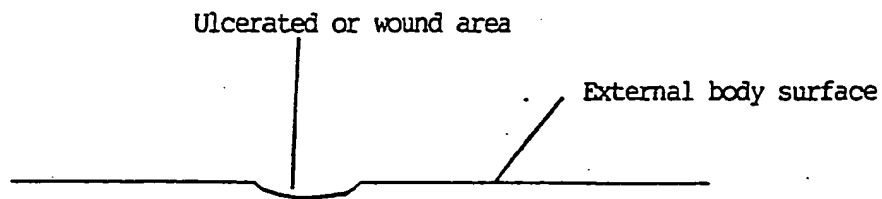
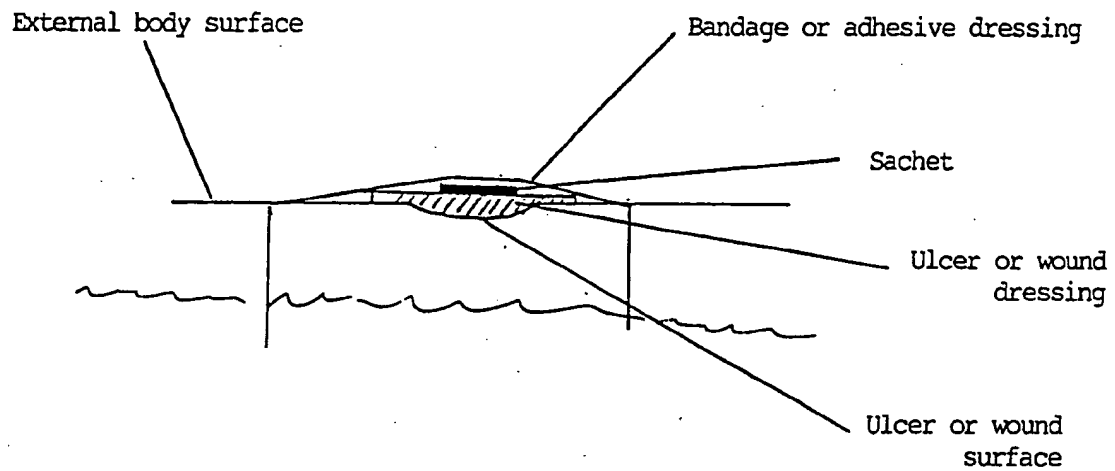


Figure 4. APPLICATION FOR EXTERNAL ULCERS, GANGRENOUS AND FUNGATING WOUNDS

a) Wound surface



b) Application of sachet



ODOUR ADSORBING MEANSTechnical
Field

This invention relates to a container which contains natural or synthetic Zeolite, the combination of which is an odour adsorbing means for use in the following medical applications:

1. stoma bags
2. incontinence appliances
3. dressings for external surface ulcers and fungating wounds.

[Background]

1. Stoma bags: Patients who have had a Colostomy, Ileostomy and Urostomy operation are, by necessity, required to apply a stoma bag to their stoma to contain body waste. Despite modern appliances having filters incorporated into their design in an attempt to prevent odours emanating from this waste, this problem still exists and can cause psychological and social difficulties for the patient.

Although there are deodorants in powder form available for the masking of odours, technical difficulties occur by squirting or placing powder in the stoma bag. The majority of stoma bag manufacturers incorporate a filter in the design to permit the release of "wind" (thereby avoiding "ballooning" of the bag). The manufacturers claim that it "helps" to absorb odour from it. The fact that there are a number of deodorants available for the masking of this odour indicates that these filters are not effective odour absorbers. However, if powder is squirted or shaken into the bag before application, it has been found that it blocks the filter and causes "ballooning" of the bag, which in turn causes discomfort to the patient. Also, there are available perfumed drops and aerosol sprays. All these products are mere masking agents. The Zeolite structure has the ability to remove odours naturally.

2. Incontinence: Hospital patients, people in care homes and in nursing homes, patients at home due to their circumstances are forced to wear an incontinence application, eg pants and pad. People who suffer from this problem also face the same psychological, social and personal difficulties because of unwelcome odours.
3. External surface ulcers and fungating wounds: Ulcers of this nature which are infected, gangrenous or cancerous wounds emanate a very unpleasant odour. Again, this can cause psychological and social difficulties for the patient.

Essential
Technical
Features

According to the present invention there is provided a container, which contains natural or synthetic Zeolite, the combination of which is an odour adsorbing means, is air/gas/water permeable, which prevents significant escape of the Zeolite contents and which can resemble a sachet type "tea bag". The container can be manufactured, eg in non-woven, woven material, man made fibre, plastic, eg polythene or any natural or synthetic material which is air/gas/water permeable or which has been manufactured with holes which are small enough to allow the passage of air/gas/water to flow through.

The contents of the container is Zeolite, natural or synthetic in the form of a fine dust, powder, granules or crystals in a size 0 microns (zero) to 10mm (ten millimetres).

Preferably, attached to the outer edge of the sachet is a double sided adhesive tape. This tape will allow the sachet to be fixed to the outer surface of a wound or ulcer dressing, the surface of an incontinence pad, and if necessary, to the inner surface of a stoma bag.

Zeolite is a naturally occurring mineral which has an unusual crystalline structure. It consists of a tetrahedral network of oxygen and silicon atoms where aluminium replaces some of the silicon to form an aluminosilicate. The result is an extended honeycomb of cavities and channels. Aluminium atoms have fewer electrons than silicon available for bonding with the oxygen atoms (three instead of four) so causing an imbalance of electrical charge. This endows Zeolite with an overall negative charge. Positively charged metal ions, cations, such as those of sodium, potassium, magnesium and calcium can neutralise the charge. Zeolite can adsorb huge quantities of ions or gas molecules. It is particularly useful in adsorbing gases such as nitrogen, ammonia and hydrogen sulphide.

There are approximately forty different types of natural Zeolite. Some of them are:-

Clinoptilolite	Natrolite	Mesolite
Scolecite	Thomsonite	Gonnardite
Edingtonite	Heulandite	Stilbite
Epistilbite	Dachiardite	Ferrierite
Phillipsite	Harmotome	Chabazite
Gmelinite	Levyne	Erionite
Faujasite	Laumontite	Mordenite
Gismondine	Ashcroftine	

Clinoptilolite is preferred for use as an adsorbing agent with the container.

The container can be shaped in any convenient shape, eg one of the following designs:

Face view: square, rectangular, triangular, circular, elliptical, cylindrical.

Volume: the volume of the container is such that it can contain from 1mg to 50 grammes.

[Example]

A specific embodiment of the invention will now be described by way of example with reference to the accompanying drawing in which:-

Fig. 1 shows the exact size of the container in sachet form.

Fig. 2 shows the application of the sachet for adsorbing odours from stoma bags by placing the sachet in the bag.

Fig. 3 shows the application of the sachet for removing odours from incontinent patients.

Fig. 4 shows the application of the sachet for adsorbing odours from external surface ulcers and fungating wounds.

In view of the foregoing, the sach t when:

1. placed in the stoma bag will remove odours emitted by body waste, see Fig. 2.
2. fixed to the incontinence pad by means of the double sided adhesive tape or placed individually into the pouch of the incontinence pants, will remove any emitting odours, see Fig. 3c. Or when placed on any pad and surface area.
3. placed between the outer surface of the dressing and between the inner surface of the bandage or adhesive tape, see Fig. 4b, will remove unpleasant odours from external surface ulcers, gangrenous and fungating wounds.

CLAIMS

1. A container which contains natural or synthetic Zeolite, the combination of which is an odour adsorbing means, is air/gas/water permeable, which prevents a significant escape of the Zeolite contents and which can resemble a sachet type "tea bag". The container can be manufactured, e.g. in non-woven, woven material, man made fibre, plastic, e.g. polythene or any natural or synthetic material which is air/gas/water permeable or which has been manufactured with holes which are small enough to allow the passage of air/gas/water to flow through. The contents of the container is Zeolite, natural or synthetic in the form of a fine dust, powder, granules or crystals in a size 0 microns (zero) to 10mm (ten millimetres).
2. A container which contains natural or synthetic Zeolite, as claimed in Claim 1, which when placed in stoma bags will adsorb and remove odours emitted by body waste from these bags which are attached to stomas of patients who have undergone surgery for colostomies, ileostomies and urostomies.
3. A container which contains natural or synthetic Zeolite, as claimed in Claim 1, which when fixed to the incontinence pad by means of the double sided adhesive tape or placed individually into the pouch of the incontinence pants of patients/people suffering from incontinence, will remove any emitting odours. Or when placed on any pad and surface area.
4. A container which contains natural or synthetic Zeolite, as claimed in Claim 1, which when placed between the outer surface of the dressing and the inner surface of the bandage or adhesive tape of patients/people suffering from external surfaces skin ulcers, gangrenous and fungating wounds will remove unpleasant odours emitted by these ulcers or wounds.

Relevant Technical fields

(i) UK CI (Edition K) A5E (ES); A5R (RPG, RPV, RCE)

(ii) Int CI (Edition 5) A61F, A61L

Databases (see over)

(i) UK Patent Office

(ii) ONLINE DATABASES: WPI, CLAIMS

Search Examiner

L V THOMAS

Date of Search

16 NOVEMBER 1992

Documents considered relevant following a search in respect of claims 1 TO 4

Category (see over)	Identity of document and relevant passages	Relevant to claim(s)
Y	GB 2227668 A (SQUIBB) see lines 6-12 page 2, lines 20-29 page 3 and Figure 3	1, 2
Y	GB 2216007 A (SQUIBB) see lines 1-11 page 3 and Figure 7	1, 2
X	WO 81/01643 A (MOLECULAR SIEVE SYSTEMS) see lines 14-32 page 2 and lines 6- 12 page 3	1, 3
X Y	US 4437429 (GOLDSTEIN et al) see lines 53- 61 column 3	1 1, 2
X Y	US 4382913 (CHMIEL et al) see lines 10-28 column 3 and lines 51-54 column 7	1, 2
X Y	JP 630305862 (DOKAI) see Derwent abstract (copy enclosed)	1 1, 2

Category	Identity of document and relevant passages	to claim(s).

Categories of documents

X: Document indicating lack of novelty or of inventive step.

Y: Document indicating lack of inventive step if combined with one or more other documents of the same category.

A: Document indicating technological background and/or state of the art.

P: Document published on or after the declared priority date but before the filing date of the present application.

E: Patent document published on or after, but with priority date earlier than, the filing date of the present application.

&: Member of the same patent family, corresponding document.

Databases: The UK Patent Office database comprises classified collections of GB, EP, WO and US patent specifications as outlined periodically in the Official Journal (Patents). The on-line databases considered for search are also listed periodically in the Official Journal (Patents).